WATER GUARD MOLDING AND METHOD OF INSTALLATION

Field of the Invention

The invention is a molding for use with floating floors, for example, for positioning along the corner formed between a wall and a floating floor.

Background of the invention

Floating floors are well-known in the art. In general, a floating floor provides a unique feel and sound as compared to a secured floor, which often is a very hard material, such as a concrete subfloor, or wood applied to a subfloor. A floating floor, such as a laminate floor, is installed to float above the subfloor by the use of an underlayment between the subfloor and the floating floor.

Of course, the floating floor will have some bend, give and flexibility. The edges of the floating floor should come as close as possible to the wall; however, exact precision is rarely possible. Additionally, expansion gaps are necessary to allow for expansion of the flooring material. Thus, moldings are used to cover the edge of the floating floor.

Notwithstanding their aesthetic and decorative beauty, floating floors often present maintenance problems. Moisture seeping between the subfloor and floating floor could cause extensive damage, especially to composite floating floors, such as those made of a compressed core of wood fibers, known in the industry as medium density fiberboard (MDF) and high density fiberboard (HDF).

The moldings of the prior art provide an aesthetic, finished look by hiding the expansion gap that exists between the floating floor and a wall. However, because a floating floor requires a gap for expansion space of approximately 1/4", and floats on a sound deadening or impact-alleviating underlayment, permitting flexibility of the floating floor, a water tight fit between the molding of the prior art and the floating floor could not be maintained.

Summary of the invention

The invention is a molding for positioning along the corner formed a first surface, such as a wall, and a floating floor. The molding has a generally planar floating floor engaging surface, and a wall engaging surface, and is made of the same material as the floating floor including an identical or complementary color and pattern. An elastomeric, compressed open-cell, or closed-cell foam pad is positioned on the lower edge of the molding along the floating-floor engaging face, and the pad resiliently creates a substantially moisture-tight seal so as to prevent moisture from the core of the floating floor, the underlayment, or into the gap between the floating floor and wall.

Optionally, the molding may include an adhesive positioned on the pad and configured to engage the floating floor when the molding is in the installed position. It may also include apertures in the wall engaging surface to allow a connector to pass therethrough, the connector fastening the molding to the corner when the molding is in the installed position.

The molding may a generally quarter-round cross-section at planes transverse to the longitudinal axis. An intermediate surface may connect the wall-engaging surface and the floating-floor engaging surface. Generally, the intermediate surface is angled so that the wall, floating floor, and intermediate surface form a generally triangular shape in a plane transverse to the longitudinal axis.

The molding may have a face positioned to face outwardly from the corner. The face may be curved or flat, depending on one's individual tastes. The cross section of the molding, at planes transverse to the longitudinal axis, may be generally uniform. The molding may be formed of MDF or HDF to which is adhered a surface layer or a thermosetting resin and a decor sheet. The resin is preferably a melamine resin, though other resins are suitable. Optionally, hard metal or ceramic particles, such as aluminum oxide or silicon dioxide, etc. may be imbedded in the decor or overlay it so as to provide abrasion resistance.

The invention further comprises a method of preventing moisture from seeping into a gap between a floating floor and a molding. The method includes the steps of installing a molding into contact with the floating floor; the molding has a pad positioned to contact the floating floor.

Brief description of the drawings

Fig. 1 is a perspective view of a first embodiment of the molding according to the principles of the present invention.

Fig. 2 is a perspective view of a second embodiment of the molding, according to the principles of the present invention.

Fig. 3 is a perspective view of the embodiment shown in Fig. 2, showing an underside view.

Fig. 4 is a perspective view of a molding, shown installed in a corner between a wall and a floating floor.

Fig. 4A is a perspective view of a molding shown installed in a corner between a wall and a floating floor, wherein the wall includes a wall base.

Fig. 5 is a perspective view of a saddle-type molding, according to the principles of the invention.

Fig. 6 is a perspective view of the molding shown in Fig. 5, shown in an installed condition.

Fig. 7 is a plan view of the molding shown in an installed condition.

Detailed Description of the Preferred Embodiments.

Fig. 1 shows a first embodiment of the invention. The molding 10 has a floating-floor engaging face 12 and a second face 14, shown as a wall-engaging face 14. The wall-engaging face 14 may have apertures 22 extending therethrough to allow an installer to connect to the wall.

In the embodiment shown in Fig. 1, a pad 18 is coupled to the floating-floor engaging face 12 of molding 10. In a preferred embodiment, no adhesive is necessary to keep the pad 18 in contact with the floating floor 10. The pad 18 can be effective as a water tight seal due to the resilient nature of the pad or the pad may be compressed when engaging the floating floor 26. No other structure or material is necessary to ensure the water tight seal. However, an adhesive 19 may be on a surface of the pad 18. An intermediate surface 16 extends between the floor-engaging surface 12 and the wall-engaging surface 14. The face 20 of the embodiment shown in Fig. 1 is generally planar or flat.

In Fig. 2, the face 20 is shown as a quarter-round or curved surface. In either any embodiment of the invention, cross-sections transverse to the longitudinal axis of the molding are generally uniform; however, varying cross-sections may also be possible.

Fig. 3 shows the underside of the molding 10. Pad 18 may be kept in a water tight relationship with the floating floor 26 solely due to its resilient nature and would be facilitated by a slight compression of pad 18 when in its installed position. An adhesive 19 may be applied to the pad 18 in order to keep the pad 18 engaged with the floating floor. In a preferred embodiment, the adhesive 19 is a preformed layer covered by a removable protective film 21. In order to install the molding, the protective film 21 is removed, exposing the adhesive 19; then, the molding 10 is positioned and installed, as will be shown in Figs. 4 and 6.

The floating floor 26 may have pliability; thus, it is necessary that the pad 18 be resilient, deformable, and remain in contact with the floating floor engaging surface 12 and the floating

floor 25. Suitable materials for pad 18 include natural and synthetic rubber, compressed open-cell foamed plastic, closed cell foamed plastics, elastomeric polymer materials, hollow core polymeric materials, and similar materials.

Fig. 4 shows a schematic diagram showing the molding 10 in an installed condition. The floating floor 26 rests on underlayment 28 which are placed on the subfloor 24, thereby creating a space 25 between the floating floor 26 and the subfloor 24. The floating floor 26 may be formed of interlocking panels, or any other known floating-floor material. As shown, an expansion gap 30 may exist between the wall 32 and the edge of the floating floor 26. This gap 30 would allow moisture to seep beneath the floating floor 26. Moisture would allow bacterial growth that could harm the underlayment 28, damage the floating floor 26, harm an MDF or HDF core layer, or otherwise cause damage to the wall 32 or subfloor 24. Hence, a relatively water-resistant and water tight molding 10 is needed.

When weight is applied to the floating floor 26 near the wall 32, the floating floor 26 will naturally deform downward toward the subfloor 24. Consequently, the floating floor 26 may tend to deform away from the molding 10. However, an adhesive 19 and pad 18 on the floor-engaging surface 12 will assist in preventing moisture from passing under the molding 10 in the event weight tends to pull the floating floor 26 away from the molding 10. Alternatively, a compressed foam pad 18 will expand and contract with the downward and upward movement of the floor, thus maintaining a seal that prevents moisture from passing under the molding 10. When no load is applied to the floating floor 26, however, a front edge of the molding 10 will remain in contact with the floating floor 26 thereby preventing the formation of a gap between the floor-engaging surface 12 and the floating floor 26.

Fig. 4 shows that the molding 10 may also be used in cooperation with wall base 33. In this embodiment, the wall-engaging face 14 abuts the wall base 33 instead of the wall 32.

Fig. 5 shows an alternate embodiment of the molding 10, also known as a saddle-type molding. While the embodiment is different in its overall function, parts having similar structure

have been given identical reference numbers. The saddle molding 10 in Fig. 5 is for use in preventing moisture from seeping between two relatively coplanar surfaces, such as adjacent, but separate, panels of a floor, for example. The molding 10 has a first floating floor engaging surface 12 and a second floor engaging surface 13. Each of these has a pad 18 adhered to thereto. A longitudinally extending flange 17 is formed between the first 12 and second 13 floor engaging surfaces. An adhesive 19 may be applied to a face of at least one pad 18 in order to maintain contact between the pad 18 and the floating floor 24. A hollow 23 may extend through the pad 18 in order to improve the resilience and flexibility of the pad 18.

The design as shown in Fig. 5 may also be used as an end molding or carpet reducer. Frequently, an end molding is placed in an expansion space. The expansion space may be filled with a sealant, thereby eliminating or reducing the need for a pad 18.

The invention may also be incorporated into carpet reducers, hard surface reducers, T-moldings and stair nosings that are not flush moldings, and therefore do not require foam beneath the portions of the moldings that overlap and press against the floating floor. These embodiments of the invention use a pressure fit from snapping the moldings 10 into their hidden metal tracks with sufficient tightness in order to ensure a secure fit. The stair nosing, for example, is screwed to the subfloor 24 and creates enough pressure to maintain a tight fit against the floating floor.

Fig. 6 shows the embodiment of Figure 5 in an installed condition over adjacent edges of a floating floor 26. The floating floor 26 is separated from the subfloor 24 by an underlayment 28. Of course, the molding 10 may be positioned over edges of differing types of flooring, such as tile, carpet, wood, or the like. As shown, edges of the floating floor 24 are separated by a gap 30. As shown the molding 10 fits over the gap 30 so that the flange 17 fits within the gap 30.

As shown in Fig. 7, the molding 10 of any embodiment may be used with inside corners 46 or outside corners 47; additionally, a straight-type joint 48, or even an angled joint (not shown) between the moldings 10 may also be constructed. Moreover, the molding 10 of the

present invention may be incorporated into carpet stops, door casings, door stops, or door jambs, or any application where a relatively water-tight, yet aesthetically pleasing, edging or molding is desired. When the method is used in conjunction with either type of corner 46, 47 or joint 48, a sealant, such as a silicone, or equivalent, sealant, should be placed around the cut edges to seal the same before the corners are joined. Additionally, silicone, or an equivalent, sealant may also be applied beneath and behind undercut door casings and door jambs when the flooring is being installed.

It is to be understood that the moldings of the invention are not limited to the shapes illustrated in the appended drawings; they may be of any shape known to one skilled in the art.

Moreover, the floating floors, as used in the present invention, are not limited to a laminate or a core of MDF or HDF, but may be used with floating floors of any construction, for example, wood veneer on a base of plywood; solid plastic panels, composite plastic, and foamed plastic panels; laminate and plywood panels, composite laminate, MDF or HDF and metal panels, wood and plastic panels, etc.

While the embodiments herein have been described in detail, the descriptions have been for illustrative purposes only, and have not been intended to limit the scope of the invention. The invention is limited only by the scope of the appended claims.